

**REMARKS**

This is in full and timely response the Decision on Appeal dated June 28, 2007.

Claims 17-36 are currently pending in this application, with claim 17 being independent.

*No new matter has been added.*

Reexamination in light of the following remarks is respectfully requested.

**Rejection under 37 C.F.R. §41.50(b)**

Page 8 of the Decision on Appeal indicates a rejection under 37 C.F.R. §41.50(b).

In response, the reopening of prosecution pursuant to 37 C.F.R. §41.50(b)(1) is respectfully requested.

This response is believed to overcome the new grounds of rejection presented within the Decision on Appeal.

**Claim rejections**

While not conceding the propriety of the claim rejections found within the Office Action of March 12, 2004, and in order to advance the prosecution of the above-identified application, claims 1-8 and 13-16 have been canceled.

Withdrawal of these rejections is respectfully requested.

**Newly added claims**

**Claims 17-36** - Claims 18-36 are dependent upon claim 17. Claim 17 is drawn to a thin film semiconductor device comprising:

a gate electrode in contact with an insulating substrate;

a gate insulating film in contact with a gate electrode, said gate electrode being between said insulating substrate and said gate insulating film,

wherein a thickness of said gate insulating film is greater than a thickness of said gate electrode.

**Japanese Publication No. 10-209467 to Hisao et al (Hisao)** - The Office Action contends that Hisao teaches the presence of a gate insulating film 4 and a gate electrode 5 (Office Action at page 3).

Regarding the Figures of Hisao, it is well established under U.S. patent practice and procedures that drawings do not define the precise proportions of the elements and may not be relied on to show particular sizes *if the specification is completely silent* on the issue. *Hockerson-Halberstadt Inc. v. Avia Group International Inc.*, 222 F.3d 951, 956, 55 USPQ2d 1487, 1491 (Fed. Cir. 2000). See M.P.E.P. §2125 (proportions of features in a drawing are not evidence of actual proportions when drawings are not drawn to scale).

Moreover, arguments based on the measurement of a drawing *are of little value absent any written description* in the specification of the quantitative values allegedly shown within the drawings. *In re Wright*, 569 F.2d 1124, 1127, 193 USPQ 332, 335 (CCPA 1977).

In this regard, Hisao arguably teaches an insulator layer 4 having a thickness of 100-200 nm (figure 2(C), paragraph [0016]) and arguably teaches a thin film semiconductor device having a

gate electrode 5 having an upper layer 5a of 50-200 nm and a lower layer 5b of 50-200 nm (figure 1, paragraph [0012]).

Here, Hisao arguably teaches overlapping ranges of thicknesses between the insulator layer 4, the upper layer 5a, and the lower layer 5b as shown hereinabove and noted in the Decision on Appeal at pages 8-9.

Yet, the Office Action fails to identify any written description in the specification of Hisao for the teaching that a thickness of said gate insulating film 4 is greater than a thickness of the gate electrode 5.

*It is believed that this issue has not been reached within the Decision on Appeal.*

Moreover, the Courts have not upheld arguments based on ‘inherent’ properties when there is no supporting teaching in the prior art” (emphasis added). *In re Dillon*, 13 USPQ2d 1337, 1348 (Fed. Cir. 1989). Instead, the Office Action must provide rationale or evidence tending to show inherency. M.P.E.P. §2112(IV).

The mere fact that a certain thing may result from a given set of circumstances is not sufficient to show an inherent anticipation. *Continental Can Co. v. Monsanto Co.*, 948 F.2d 1264, 1268, 20 USPQ2d 1746, 1749 (Fed. Cir. 1991).

Specifically, the fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993). Instead, inherency requires that the missing descriptive material is “necessarily present,” not merely probably or possibly present, in the prior art.” *Trintec Indus., Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292, 1295, 63 USPQ2d 1597, 1599 (Fed. Cir. 2002).

A patentable invention, within the ambit of 35 U.S.C. §103 may result even if the inventor has, in effect, merely combined features, old in the art, for their known purpose, without

producing anything beyond the results inherent in their use. *In re Sponnoble*, 160 USPQ 237, 243 (CCPA 1969).

In addition, such a retrospective view of inherency is not a substitute for some teaching or suggestion supporting an obviousness rejection. *In re Rijckaert*, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993).

- ***Thus, the Office Action fails to show Hisao as teaching the presence of a thin film semiconductor device wherein a thickness of said gate insulating film is greater than a thickness of said gate electrode.***

**Claims 28-30** - Claims 29-30 are dependent upon claim 28. Claim 28 is drawn to the thin film semiconductor device according to claim 27, wherein said metallic material contains aluminum.

**Hisao** - Hisao arguably teaches a lower layer 5b of W, Cr, Mo, and Ti, (paragraph [0012]).

However, the Office Action fails to show a teaching within Hisao of the lower layer 5b including a metallic material containing aluminum.

- ***Thus, the Office Action fails to show Hisao as teaching the presence of a thin film semiconductor device wherein said metallic material contains aluminum.***

**Claims 31-35** - Claims 32-35 are dependent upon claim 31. Claim 31 is drawn to the thin film semiconductor device according to claim 27, wherein said another metallic material is from the group consisting of molybdenum, tantalum, tungsten and chromium.

**Hisao** - **Hisao** arguably teaches an upper layer 5a of an ITO film, TiN film, and TiON film, or Nichrome (paragraph [0012]).

However, the Office Action **fails** to show a teaching within **Hisao** of the upper layer 5a including another metallic material from the group consisting of molybdenum, tantalum, tungsten and chromium.

- ***Thus, the Office Action fails to show Hisao as teaching the presence of a thin film semiconductor device wherein said another metallic material is from the group consisting of molybdenum, tantalum, tungsten and chromium.***

Allowance of the claims is respectfully requested.

### **Conclusion**

For the foregoing reasons, all the claims now pending in the present application are allowable, and the present application is in condition for allowance.

Applicants reserve the right to set forth further arguments supporting the patentability of their claims, including the separate patentability of the dependent claims not explicitly addressed herein, in future papers.

There is no concession as to the veracity of Official Notice, if taken in any Office Action. An affidavit or document should be provided in support of any Official Notice taken. 37 CFR 1.104(d)(2), MPEP § 2144.03. See also, *Ex parte Natale*, 11 USPQ2d 1222, 1227-1228 (Bd. Pat. App. & Int. 1989)(failure to provide any objective evidence to support the challenged use of Official Notice constitutes clear and reversible error).

Accordingly, favorable reexamination and reconsideration of the application in light of the remarks is courteously solicited.

**Extensions of time**

Please treat any concurrent or future reply, requiring a petition for an extension of time under 37 C.F.R. §1.136, as incorporating a petition for extension of time for the appropriate length of time.

**Fees**

If any fee is required or any overpayment made, the Commissioner is hereby authorized to charge the fee or credit the overpayment to Deposit Account # 18-0013.

If the Examiner has any comments or suggestions that could place this application in even better form, the Examiner is requested to telephone Brian K. Dutton, Reg. No. 47,255, at 202-955-8753.

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Respectfully submitted,

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